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SYSTEM AND METHOD FOR VERIFYING THE
VALIDITY OF A PATH IN A NETWORK ENVIRONMENT

ABSTRACT OF THE DISCLOSURE

A method for verifying a validity of a path is provided that includes receiving an advertisement communication at a first autonomous system from a second

5   autonomous system, the advertisement communication including a list of one or more connected autonomous systems. The method also includes identifying whether the first autonomous system claims a connection to the second autonomous system and whether the second

10   autonomous system claims a connection to the first autonomous system such that two-way connectivity is established between the autonomous systems. In response to the establishment of the two-way connectivity, a directed graph is constructed that includes two nodes

15   representing the first and second autonomous systems respectively. An edge may be formed that connects the two nodes.